



PATENT
Docket No. 213542000102

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In the application of:

Lennart OLSSON and Tatjana
NARANDA

Serial No.: 10/074,695

Filing Date: February 11, 2002

For: RECEPTOR DERIVED PEPTIDES
INVOLVED IN MODULATION OF
RESPONSE TO LIGAND BINDING

Examiner: To Be Assigned

Group Art Unit: 1644

##7

**INFORMATION DISCLOSURE
STATEMENT UNDER 37 C.F.R. § 1.97**

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Copies of the documents are also submitted herewith. The Examiner is requested to make these documents of record.

This Information Disclosure Statement is submitted:

- ☐ With the application; accordingly, no fee or separate requirements are required.
- ☒ Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required.
- ☐ After receipt of a first Office Action on the merits but before mailing of a final Office Action or Notice of Allowance.
 - ☐ A fee is required. A check in the amount of * is enclosed.
 - ☐ A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.
 - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below; accordingly; no fee is believed to be due.
- ☐ After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee.
 - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a check in the amount of * is enclosed.
 - ☐ A Certification under 37 C.F.R. § 1.97(e) is provided below and a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.

Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

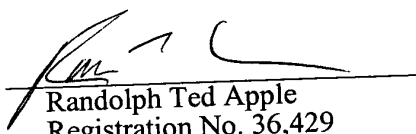
The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to


charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 213542000102. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: July 31, 2002

Respectfully submitted,

By: 
Randolph Ted Apple
Registration No. 36,429

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755 Page Mill Road
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Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary) 	Docket Number 213542000102	Application Number 10/074,695
	Applicant Lennart OLSSON and Tatjana NARANDA	
	Filing Date February 11, 2002	Group Art Unit 1644
	Mailing Date July 31, 2002	

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U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate
	1.	01/31/1995	5,385,888	Goodenow et al.			
	2.	06/17/1997	5,639,458	Olsson et al.			
	3.	12/08/1998	5,846,827	Celis et al.			
	4.	12/29/1998	5,853,999	Olsson et al.			
	5.	03/23/1999	5,885,574	Elliot			

FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO	
	6.	07/26/1990	WO 90/08161	WIPO				
	7.	09/07/1990	WO 90/10016	WIPO				
	8.	11/14/1991	WO 91/17253	WIPO				
	9.	09/16/1993	WO 93/17699	WIPO				
	10.	02/23/1995	WO 95/05189	WIPO				
	11.	02/08/1996	WO 96/03438	WIPO				
	12.	05/23/1996	WO 96/15426	WIPO				
	13.	11/14/1996	WO 96/35443	WIPO				
	14.	09/12/1997	WO 97/32899	WIPO				

OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
	15.	Ebina et al. (1985). "The human insulin receptor cDNA: the structural basis for hormone-activated transmembrane signalling," <i>Cell</i> 40:747-758.
	16.	EMBL accession number M38027, published by Fukunaga et al. (1990), visited on June 6, 2002.
	17.	EMBL accession number M59820, published by Fukunaga et al. (1990), visited on June 6, 2002.
	18.	EMBL accession number X55720, published by Larsen et al. (1990), visited on June 6, 2002.

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Form PTO-1449		Docket Number 213542000102	Application Number 10/074,698
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		Applicant Lennart OLSSON and Tatjana NARANDA	
		Filing Date February 11, 2002	Group Art Unit 1644
		Mailing Date July 31, 2002	
	19.	EMBL accession number X55721, published by Larsen et al. (1990), visited on June 6, 2002.	
	20.	Fukumoto et al. (1989). "Cloning and characterization of the major insulin-responsive glucose transporter expressed in human skeletal muscle and other insulin-responsive tissues," <i>J. Biol. Chem.</i> 264(14):7776-7779.	
	21.	GenBank Accession No. D28561, published by Kasahara et al. (1997), visited on June 10, 2002.	
	22.	GenBank Accession No. M20747, published by Fukumoto et al. (1989), visited on June 10, 2002.	
	23.	GenBank Accession No. A18657, published by by WO 91/17253.	
	24.	GenBank Accession No. U43168, published by Tartaglia et al. (1995), visited on June 10, 2002.	
	25.	GenBank Accession No. U32324, published by Van Leuvan (1995), visited on June 10, 2002.	
	26.	GenBank Accession No. U31993, published by Yao et al. (1995), visited on June 10, 2002.	
	27.	Gribskov and Burgess (1986). "Sigma factors from <i>E. Coli</i> , <i>B. subtilis</i> , phage SP01, and phage T4 are homologous proteins," <i>Nucl. Acids Res.</i> 14(16):6745-6763.	
	28.	Haft et al. (1994). "Involvement of dileucine motifs in the internalization and degradation of the insulin receptor," <i>J. Biol. Chem.</i> 269(42):26286-26294.	
	29.	Hamer (1997). "Dual role of a dileucine motif in insulin receptor endocytosis," <i>J. Biol. Chem.</i> 272(35):21685-21691.	
	30.	Hansen et al. (1989). "Inhibition of insulin receptor phosphorylation by peptides derived from major histocompatibility complex class I antigens," <i>PNAS USA</i> 86:3123-3126.	
	31.	Korpi and Seeburg (1993). "Natural mutation of GABA _A receptor alpha6 subunit alters benzodiazepine affinity but not allosteric GABA effects," <i>Eur. J. Pharm.</i> 247:23-17.	
	32.	Larsen et al. (1990). "Expression cloning of human granulocyte colony-stimulating factor receptor: A structural mosaic of hematopoietin receptor, immunoglobulin, and fibronectin domains," <i>J. Exp. Med.</i> 172:1559-1570.	
	33.	Leonard et al. (1984). "Molecular cloning and expression of cDNAs for the human interleukin-2 receptor," <i>Nature</i> 311:626-631.	
	34.	Levy-Toledano et al. (1993). "Deletion of C-terminal 113 amino acids impairs processing and internalization of human insulin receptor: comparison of receptors expressed in CHO and NIH-3T3 cells," <i>Biochem. Biophys. Acta.</i> 1220:1-14.	
	35.	Li et al. (1994). "An irregularity in the transmembrane domain helix correlates with the rate of insulin receptor internalization," <i>J. Biol. Chem.</i> 269(33):14333-14338.	
	36.	Naranda et al. (1997). "A peptide derived from an extracellular domain selectively inhibits receptor internalization: target sequences on insulin and insulin-like growth factor 1 receptors," <i>PNAS USA</i> 94:11692-11697.	
	37.	Naranda et al. (1999). "Activation of erythropoietin receptor in the absence of hormone by a peptide that binds to a domain different from the hormone binding site," <i>PNAS USA</i> 96:7569-7974.	
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Form PTO-1449

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Application Number 10/074,695

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Applicant

Lennart OLSSON and Tatjana NARANDA

Filing Date February 11, 2002

Group Art Unit 1644

Mailing Date July 31, 2002

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38.	Ngo et al. "The protein folding problem and tertiary structure prediction," Merz & LeGrand, Birkhauser Boston pp. 491-495.
39.	Olsson et al. (1994). "Regulation of receptor internalization by the major histocompatibility complex class I molecule," <i>PNAS USA</i> 91:9086-9090.
40.	Piper et al. (1992). "The efficient intracellular sequestration of the insulin-regulatable glucose transported (GLUT-4) is conferred by the NH2 terminus," <i>J. Cell Biol.</i> 117(4):729-743.
41.	Rajagopalan et al. (1995). "Chimeric receptors expressing juxtamembrane sequences of the insulin receptor undergo rapid endocytosis in the absence of receptor tyrosine kinase activity," <i>Biochem. Biophys. Res. Commun.</i> 211(3):714-718.
42.	Rudinger (1976). "Characteristics of the amino acids as components of a peptide hormone sequence," <i>In Peptide Hormones</i> J. Parsons ed. University Park Press: Baltimore, MD pp. 1-7.
43.	Salgaller et al. (1994). "Generation of specific anti-melanoma reactivity by stimulation of human tumor-infiltrating lymphocytes with Mage-1 synthetic peptide," <i>Canc. Immunol. Immunother.</i> 39:105-116.
44.	Silver et al. (1992). "Atomic structure of a human MHC insulin molecule presenting an influenza virus peptide," <i>Nature</i> 360:367-369.
45.	Stagsted et al. (1990). "Regulation of insulin receptor functions by a peptide derived from a major histocompatibility complex class I antigen," <i>Cell</i> 62:297-307
46.	Stagsted et al. (1991). "A preformed, ordered structure of a 25-residue peptide derived from a major histocompatibility complex class I antigen is required to affect insulin receptor function," <i>J. Biol. Chem.</i> 266(20):12844-12847.
47.	Stagsted et al. (1993). "Correlation between insulin receptor occupancy and tyrosine kinase activity at low insulin concentrations and effect of major histocompatibility complex class I-derived peptide," <i>J. Pharm. Exper. Therap.</i> 267(2):997-1001.
48.	Stagsted et al. (1993). "Inhibition of internalization of glucose transporters and IGF_II receptors," <i>J. Biol. Chem.</i> 268(30):22809-22813.
49.	Staubs et al. (1994). "Localization of the insulin receptor binding sites for the SH2 domain proteins p85, Syp, and GAP," <i>J. Biol. Chem.</i> 269(44):27186-27192.
50.	Strader et al. (1989). "Structural basis of beta-adrenergic receptor function," <i>FASEB J.</i> 3:1825-1832.
51.	Swissprot accession number P00533, published by Ullrich et al. (1984), visited on 6/6/2002.
52.	Swissprot accession number P08887, published by Yamasaki et al. (1998), visited on 6/6/2002.
53.	Swissprot accession number P19235, published by Ehrenman (1991), visited on 6/6/2002.
54.	Swissprot accession number P24024, published by Tong et al. (1990), visited on 6/6/2002.
55.	Swissprot accession number P25025, published by Murphy et al. (1991), visited on 6/6/2002.
56.	Swissprot accession number P40238, published by Vigon et al. (1992), visited on 6/6/2002.

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Form PTO-1449

Docket Number 213542000102

Application Number 10/074,695

**INFORMATION DISCLOSURE CITATION
IN AN APPLICATION**

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Applicant

Lennart OLSSON and Tatjana NARANDA

Filing Date February 11, 2002

Group Art Unit 1644

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| 57. | Swissprot accession number P42701, published by Chua et al. (1994), visited on 6/6/2002. |
| 58. | Tartaglia et al. (1995). "Identification and expression cloning of leptin receptor, OB-R," <i>Cell</i> 83:1263-1271. |
| 59. | Ullrich et al. (1984). "Human epidermal growth factor receptor cDNA sequence and aberrant expression of the amplified gene A431 epidermoid carcinoma cells," <i>Nature</i> 309:418-425. |
| 60. | Verhey et al. (1995). "Distinct signals in the GLUT4 glucose transporter for internalization and for targeting to an insulin-responsive compartment," <i>J. Cell Biol.</i> 130(5):1071-1079. |
| 61. | Verland et al. (1989). "Specific molecular interaction between the insulin receptor and a D product of MHC class 1," <i>J. Immun.</i> 143(3):945-951. |

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number Of Pages In This Submission	12 + 61 references	Application Number	10/074,695
		Filing Date	February 11, 2002
		First Named Inventor	Lennart OLSSON
		Group Art Unit	1644
		Examiner Name	To Be Assigned
		Attorney Docket No.	213542000102

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SIGNATURE OF APPLICANT, ATTORNEY OR AGENT

Firm or Individual Name	Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, California 94304-1018
Signature	Randolph Ted Apple (Registration No. 36,429)
Date	July 31, 2002

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